Species Highlight: Rusty Patched Bumble Bee (*Bombus affinis*)

Global Rarity Rank: G1 – Critically imperiled
State Rarity Rank: S1 – Critically imperiled in VA
Legal Status: Federally endangered

The rusty patched bumble bee is a colonial insect with an annual cycle that starts in early spring when solitary queens become active after winter dormancy. These solitary queens begin new colonies by producing female workers that collect pollen and nectar throughout the summer as the queen continues laying eggs. The annual cycle ends with the production of males and new queens in late summer and early fall. The males mate with the new queens and then die, while the new queens go into diapause (a form of hibernation) over winter. The old queen and workers also die and the cycle begins again in early spring when solitary new queens emerge from winter diapause.

Survival of a colony requires a continuous supply of flowering plants from early spring through fall, undisturbed nest sites near those flowering plants, and overwintering sites for the next year's queens. Healthy populations of the rusty patched bumble bee may include tens to hundreds of colonies. The health of bumble bee populations depends on the quantity and quality of available nectar and pollen and the proximity of flowering plants to nest sites.

The rusty patched bumble bee has been observed and collected in a variety of habitats that include prairies, woodlands, marshes, agricultural landscapes and residential parks and gardens.

Literature cited:

"Rusty Patched Bumble Bee, Questions and Answers Proposed Listing of Rusty Patched Bumble Bee as Endangered." U.S. Fish and Wildlife Service, Midwest Region. January 10, 2017. Website. Accessed January 18, 2017